REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-43 are currently pending. No claims have been amended. Thus, no new matter has been added by the present response.

In the outstanding Office Action, Claims 11, 42, and 43 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter; Claims 1-43 were rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent Publication No. 2004/0233855 to Gutierrez et al. (hereinafter "Gutierrez") in view of U.S. Patent Publication No. 2004/0029553 to Cain (hereinafter "Cain").

Regarding the rejection of Claims 11, 42, and 43 under 35 U.S.C. §101, Applicant refers the Examiner's attention to the BPAI decision of September 14, 2009, in *Ex Parte Azuma*, in which the Board found that the Examiner erred in finding that the cited claims to a computer readable medium in that case implicated the use of carrier waves, when the specification only taught tangible mediums such as a server, a floppy drive, a main memory, and a hard disk..

Since the Applicant's specification similarly discloses central processing unit (CPU), a Read Only Memory (ROM), for storing various programs, and a Random Access Memory (RAM) as a work memory for the CPU,[1] Applicant submits that the claimed "computer readable medium on which is recorded a program which, when executed in a processor, directs the processor to perform a process" is a non-transitory tangible storage medium. While there are data packets transmitted in Applicant's invention, the data packets do not direct the computer to perform the recited steps. Thus, when considered as a whole, Claims

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[1] Specification at page 17, lines 20-21 and Fig. 2.

11, 42, and 43 define statutory subject matter and meet the requirements of the Interim

August 2009 PTO guidelines for statutory subject matter.

Thus, Applicant respectfully submits that the rejection of Claims 11, 42, and 43

should be withdrawn.

Applicant respectfully traverses the rejection of Claim 1 under 35 U.S.C. § 103(a) as

being anticipated by Gutierrez in view of Cain.

Claim 1 is directed, in part, to a communication system,

wherein the second and third communication terminals comprise:

route creation means for creating a plurality of the routes *to the first
communication terminal* by duplicatively receiving the message; and
route management means for storing and managing the plurality of
routes created by the route creation means, and
the route management means establishes one of the created routes as a
communication route to the first communication terminal and changes the
communication route to any of the plurality of routes depending on needs.

The Office Action asserts that Gutierrez teaches "route management means for storing

and managing the plurality of routes created by the route creation means," and asserts that

Cain teaches "route creation means for creating a plurality of the routes to the first

communication terminal by duplicatively receiving the message."

Applicant submits that the plurality of routes referred to by the Examiner in Gutierrez

is a plurality of routes to different nodes, and is not (as defined by Claim 1) a plurality of

routes to a first communication terminal, created by the claimed route creation means. For

example, the table in Figure 6 of Gutierrez (while showing a plurality of routes) shows only a

single route to each node.

Indeed, paragraph [0023] of Gutierrez reinforces Applicant's interpretation about this

point and states, in part:

"unlike full source routing protocols, **only the NC**, which has
relatively higher processing power and memory than the NDs connected

thereto, **includes all of the preferred routes between the NDs**. In contrast, the NDs are relatively low power, low memory devices that have a simpler program than the NC. Instead, the NDs, upon initialization, engage in a neighbor discovery process, in which the 'best' multi-hop neighbor is discovered. In this manner, the NC knows the entire roadmap of the ad-hoc network, **while each of the NDs only knows enough to ask its 'best' neighbor to pass the information along to its 'best' neighbor, and so on, until the ultimate destination is reached."**

Accordingly, the above-cited paragraph of Gutierrez describes that a network device is only aware of "it's best neighbor." Furthermore, regarding the NCs, although the above paragraph states that "the NC knows the entire roadmap of the ad-hoc network," Fig. 6 of Gutierrez shows that the route table within a network controller only stores a single route (i.e., a single preferred path from the network controller to each node)[2]

According to the algorithm controlling the system in Gutierrez, every message contains a field that allows the ND to recognize the two types of transfer: (1) upstream transfer (i.e., from the particular ND to the NC); or (2) downstream transfer (i.e., from the NC to the particular ND).[3] For the "upstream transfer" mode, the ND tries to choose the optimal path to the NC based on a determination of a "best neighbor" according to various factors. The path taken by the upstream message is stored in the message and saved in the NC as the preferred path back to the source of the message. In the "downstream transfer" mode, all messages are sent with the full path information to the immediate ND, which relays the message according to the source route.

Thus, the NC maintains a single preferred path to each ND, downstream messages contain full path information so the ND doesn't need to possess any path information to the

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[2] Gutierrez at paragraph 0068.
[3] Gutierrez at paragraph 0078.

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downstream destination, and each ND only keeps track of its "best neighbor" for sending upstream messages.

According to the above algorithm, the NC of Gutierrez requires minimal resources (e.g., RAM and ROM) and permits relatively efficient, low power, low cost communication in systems, such as building automation, that would, otherwise, be cost prohibitive if only full source routing (e.g., standard DSR) networks were employed.[4] Moreover, to modify Gutierrez, would render Gutierrez unsatisfactory for its intended purpose which is to reduce the resource requirement by having only single paths between nodes. Under M.P.E.P. § 2143.01 V, is an indicia of non-obviousness.

Furthermore, Applicants submit that the asserted combination of Gutierrez and Cain would require significant redesign of Gutierrez and a change in its basic principles of operation (i.e., requiring Gutierrez to accommodate multiple paths to individual nodes). See In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959) reverses an obviousness rejection where the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate."

For these reasons, the route table in the NC of Gutierrez, which is not designed to store "a plurality of routes" to a first communication terminal, does not disclose or suggest, and even teaches away from Applicant's claimed "route management means for storing and managing the plurality of routes to a first communication terminal created by the route creation means," as recited in Claim 1.

Accordingly, Applicant respectfully submits that the Office Action has failed to present a *prima facie* case of obviousness for the combination of Gutierrez and Cain.

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[4] Gutierrez at paragraph 0023.

Independent Claims 3, 10-14, 19, 22, 25, 26, 27, 33, 36, 37, 41, 42, and 43 recite

features similar to the features in Claim 1, except that some of these claims do not require the

feature of duplicatively receiving a message. However, since the art is deficient with regard

to disclosing or suggesting plural route management means, for similar reasons stated above

with respect to Claim 1, Applicant respectfully submits that the rejection of Claims 3, 10-14,

19, 22, 25, 26, 27, 33, 36, 37, 41, 42, and 43 (and all associated dependent claims) should be

removed.

Thus, it is respectfully requested that independent Claims 1, 3, 10-14, 19, 22, 25, 26,

27, 33, 36, 37, 41, 42, and 43 (and all associated dependent claims) should be passed to

allowance.

Consequently, in light of the above discussion, the outstanding grounds for rejection

are believed to have been overcome. The present application is believed to be in condition

for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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